

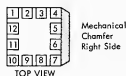
## Functional Description

The Four Transistor, FTX-1C, module consists of four single transistors with the individual base, emitter and collector leads terminated at specific pins. The four transistor module offers the circuit designer uniformity of circuit packaging as well as flexibility in application with other SLT modules.

## Schematic



## Terminal Configuration



## Maximum Ratings

$$I_E = 50 \text{ milliamps}$$

## FTX-1C Test Conditions

INDIVIDUAL DEVICE PARAMETER TESTS					
TESTS	TEST CONDITIONS	T ° C	LIMITS		
			MIN	MAX	UNITS
$I_{CEX}$	$V_{CE} = +13V, V_{BE} = +0.35V$	75		20	$\mu a$
$I_{BEX}$	$V_{CE} = 13V, V_{BE} = -2.5V$	75		10	$\mu a$
$BV_{CEO}$	$I_C = 5 \text{ ma}$	25	10		V
$BV_{EBO}$	$I_E = 10 \mu a$	25	2.5		V
$BV_{CBO}$	$I_C = 10 \mu a$	25	15		V
$h_{FE1}$	$I_E = 1 \text{ ma}, V_{CB} = 0.0V$	25	10		—
$h_{FE2}$	$I_E = 1 \text{ ma}, V_{CB} = 0.0V$	25	25		—
$h_{FE3}$	$I_E = 10 \text{ ma}, V_{CB} = 0.0V$	25	30		—
$h_{FE4}$	$I_E = 50 \text{ ma}, V_{CB} = 0.0V$	25	25		—
$V_{CE1}(\text{sat})$	$I_C = 1 \text{ ma}, I_B = 0.05 \text{ ma}$	25		0.22	V
$V_{CE2}(\text{sat})$	$I_C = 10 \text{ ma}, I_B = 0.50 \text{ ma}$	25		0.24	V
$V_{CE3}(\text{sat})$	$I_C = 22 \text{ ma}, I_B = 1.2 \text{ ma}$	25		0.32	V
$V_{CE4}(\text{sat})$	$I_C = 50 \text{ ma}, I_B = 2.5 \text{ ma}$	25		0.40	V
$V_{BE1}(\text{sat})$	$I_C = 1 \text{ ma}, I_B = 0.05 \text{ ma}$	25	.60	0.75	V
$V_{BE2}(\text{sat})$	$I_C = 10 \text{ ma}, I_B = 0.50 \text{ ma}$	25	.70	0.85	V
$V_{BE3}(\text{sat})$	$I_C = 50 \text{ ma}, I_B = 2.5 \text{ ma}$	25	.85	1.1	V
$V_{BE}(\text{ON})$	$I_C = 1.0 \text{ ma}, V_{CB} = +1.0V$	75	.50		V
$C_{ib}$	OV BIAS $f = 1 \pm 0.5 \text{ mhz}$	25		6.0	pf
$C_{ob}$	OV BIAS $f = 1 \pm 0.5 \text{ mhz}$	25		6.0	pf
/GAIN/	$I_E = 10 \text{ ma}, V_{CE} = 3V, \frac{f}{R_L} = 100 \text{ mhz}$ $R_L = 50 \Omega$	25	1.5		—
$t_{s1}$	$I_C = 10 \text{ ma}, I_{B(ON)} = .33 \text{ ma}$ See Fig 1	25		250	ns
$h_{ie}$	$I_C = 5.0 \text{ ma}, V_{CE} = +5V, f = 1 \text{ khz}$	25	0.10	2.0	K $\Omega$
$h_{fe2}$	$I_C = 1.0 \text{ ma}, V_{CE} = +5V, f = 1 \text{ khz}$	25	20	180	—
$h_{fe3}$	$I_C = 5.0 \text{ ma}, V_{CE} = +5V, f = 1 \text{ khz}$	25	30	250	—
$h_{fb}$	$I_E = 5.0 \text{ ma}, V_{CB} = +5V, f = 1 \text{ khz}$	25	0	1.6	$\times 10^{-3}$
$h_{ob}$	$I_E = 5.0 \text{ ma}, V_{CB} = +5V, f = 1 \text{ khz}$	25	0	2.5	$\mu \text{min}$

## $\tau_s$ Test Circuit

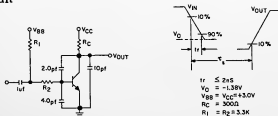


FIGURE 1